

TRANSCRIPT

Myth-busting the metaverse and decrypting the crypto economy

Presenters: Lubna Lundy, Coby Powers, and Anthony Ross

Nina: Hello. My name is Nina, and I am an AI-driven synthetic human using advanced technology. I can speak over 40 languages. I'm not alone here. There are more than 40 avatars to choose from. At this time, I'd like to introduce our speakers for today's webinar. Anthony Ross is a vice president of investment product for Fidelity Investments. In this role, Mr. Ross is responsible for leading the business strategy development, advocacy, and product management of Fidelity's thematic and sector equity strategies and the development of the firm's proprietary fixed income indices. Coby Powers is a research analyst in the equity division at Fidelity Investments. In this role, Mr. Powers is responsible for the research and analysis of the cryptocurrency and Web3 space broadly as well as next generation payment platforms. Lubna Lundy is director of investment product for Fidelity Investments. In this role, Ms. Lundy is responsible for product strategy development, management, and advocacy for Fidelity's thematic and sector strategies. Without further ado, Anthony, why don't you get us started?

Anthony Ross: So, thank you, Nina. We thought that would be a good way to open this up and give you all a small taste of some of the technologies we're already starting to integrate into our personal and professional lives and certainly the

use of avatars like Nina are part of that story. So, again, I'm Anthony Ross and I'm responsible for our thematic and sector equity products here at Fidelity and very excited to kick off today's discussion on the metaverse and the crypto economy. Last week was an eventful one for us as a team and at the firm. As some of you may have noted, we launched two ETFs: we launched the Fidelity Metaverse ETF as well as the Fidelity Crypto Industry and Digital Payments ETF. We also established our first immersive metaverse experience in Decentraland, the Fidelity Stack, which is aimed at providing basic investment education and details around some of our capabilities, which I know my colleague, Lubna, will dig into both of those topics in a bit more detail later in the presentation. So maybe just to briefly orient us, I can step through our agenda here. Now, we planned to maybe open things up with just a quick discussion around thematic investing generally and how we think about that here at Fidelity, then provide our thoughts around understanding the metaverse and the crypto ecosystems and the companies and friends that are helping to define those spaces. And then again, sort of round things off with a conversation around our capabilities that we're bringing to bear in this space. So, what is thematic investing? For us, we view thematic investing as providing exposure to our customers to long term trends that generally satisfy three criteria. So, the first being these trends or themes tend to cut across multiple industries and sectors. So, they're large in scope in terms of the

economic impact and the diversity of subindustries that are involved in those themes. Secondly, they generally tend to be disruptive and disruptive to the status quo both in terms of incumbent entrenched companies in some of the spaces as well as business models. And then lastly, they're expected to play out over many years or even decades in some cases. And given the advances that we're seeing and witnessing across a wide spectrum of areas including information technology, biotech energy to name a few, and the large shifts in consumer preferences across generations that we're observing — Boomers versus Millennials, Gen Y versus Gen X — in terms of their investment preferences and consumption preferences. I think all of that is helping to form a view, certainly within our team from a product perspective, that the pace of change broadly and disruption is likely to accelerate. And that creates opportunities for us and for our customers in the thematic space. And then frankly, also it's an area focus for us because our customers are increasingly developing points of view around some of these themes and are proactively seeking exposures and we want to be on position to deliver that. Our thematic lineup or capabilities span well over a dozen funds or so; here on the page in front of you are just sort of a short list of some of the themes that we've been focused on more recently. So, we again launched our cloud computing digital health and future of transportation in clean energy ETFs in October of last year, and then of course again, our crypto industry and

metaverse ETFs more recently. Just jumping now into the metaverse and the crypto ecosystem and what does that mean and how do we think about that here at Fidelity. In its simplest terms, we think about the metaverse and crypto ecosystems as that next big leap in the evolution of the internet and the web. And I think it's useful to take a small step back and consider the journey of the internet and how it's been formed and evolved since the mid-'90s to the present day because I think that provides a bit of perspective and context for today's discussion. So, for those of us that remember the mid-'90s or the early 2000s, it was around that time that awareness of the internet entered the mainstream. And then, like now, there was a lot of debate about how consequential the internet would be commercially and questions around whether or not it was overhyped. And there were no shortage of articles or late-night TV hosts scoffing at the notion of telecommuting workers or social media or large digital retail ecosystems where you can buy anything. And also, I think the experience of interacting on the internet at that time was very different than it is today. It was characterized by slow landline dialup connections, again for those of us who remember that, and large desktop machines that maybe sat in a corner of a room somewhere in your house that you logged onto a few times a week. And I think broadly we refer to that as Web 1.0, which is kind of that stack towards the left-hand side of this page. And then in the early-, mid-2000s or so we graduated to what is often called

Web 2.0, or the mobile internet. And that was characterized and continues to be characterized by broadband connections and Wi-Fi and mobile devices. And eventually we got smart phones and apps, and 20-plus years later it's hard to imagine or think about any aspect of our work or personal lives that isn't deeply intertwined with the internet. And so, the visions that are being articulated currently about the metaverse and the crypto ecosystem and what it could be, we'd already suggest that we're on the cusp of that next evolutionary step towards Web 3.0, which is an internet experience that will be characterized by this mixing of digital and physical realms through increasingly immersive virtual reality and augmented reality experiences. And so, five years plus from now, instead of principally relying on keyboards or a mouse pad to consume data or information on the web as your default for the average person, your first stop might be an immersive web experience like Decentraland, we mentioned earlier. If you wanted to learn about finance again in Web 1.0, your first stop might've been to visit a website with some text and to read through that. If you wanted to learn about finance or investing in Web 2.0, it might be a smart phone app or a social media video. But again, with Web 3.0, there are these — increasingly will be as well — these immersive web gamified social experiences like the Fidelity Stack, that again, could be your first stop on your journey for collecting and gathering information. This Web 3.0 experience, more immersive experience, would

also include augmented reality. So, imagine lightweight eyeglasses or a car windshield that you look through and can see the real physical world around you, but that is being overlaid with digital information that is either entertaining to you or informing you as you move on your way. It certainly includes headsets, and that's gotten a lot of attention recently. And it's important to note that the metaverse or Web 3.0 are not defined solely by that sort of headset virtual reality experience, but it's certainly part of what we think is the collection of experience that will define this next era of the internet. It will include voice. I've got a first and third grader at home and their expectation when they encounter any device is that they'll be able to speak to it and that it'll speak back to them. And whether that's Siri and Alexa and other applications as those evolve, we expect that to expand as well. And then certainly, the blockchain and crypto industry and ecosystem, which creates a dimension of ownership and native economies within these digital spaces that again we think will expand and then certainly help to continue to characterize and define this Web 3.0 experience. And that's just kind of like asking the question of, where are we on this journey towards Web 3.0? And we'd argue that we're certainly at the beginning, really. And one way to quantify that is to look at adoption rate. So, on the chart here, the gray line is charting the number of internet users from 1990 through 2020. And you can see that tops out at around 5 billion or so. And the green and blue dots show

current estimates of where adoption rates are for Web3 technologies and crypto usage today. And clearly by that comparison, we're solidly in that early adopter or innovator phase here, so we'd argue there's plenty of runway here for the trend to continue to evolve and grow. So, with that, I will turn it over to my colleague, Coby, to take us a bit more through the crypto ecosystem and share some of his thoughts there.

Coby Powers: Thanks, Anthony. Well, everyone, I'm going to walk you through the crypto space and some of the investing opportunities as part of this ETF at a very high level. So, if we jump to slide nine. To start off, it's important to define crypto and the blockchain in addition to thinking about where we are demographically. Crypto and blockchain are fundamental new technology standards like the internet or mobile phones. So, as Anthony mentioned in his prior slide, it's very important to be aware of where we are in their respective adoption curves. Just to repeat what Anthony said, 200 million people are estimated to have adopted crypto — only two percent of the world's population and five percent of the world's four billion internet users. But it's growing rapidly. Adoption of crypto is expected to go from 200 million today to one billion users by 2027, which represents a 40 percent CAGR, compounded annual growth rate. So, the adoption growth is expected to continue to grow at very high rates. Importantly, 94 percent of crypto buyers

today are between the ages of 18 to 40. The 18-to-40 demographic controls five percent of the world's wealth compared to over 50 percent for baby boomers. That's a very key point, suggesting there's significant room for crypto to attract more dollars as millennials age. If we break down the crypto space further, cryptocurrencies are defined as digital assets designed to work as a medium of exchange through a computer network. Bitcoin is the largest and most successful of the two trillion cryptocurrency asset class. However, it only represents 40 percent of the total market cap. Ethereum is the second largest at 20 percent of the market cap, and there are more than 18,000 coins beyond Bitcoin and Ethereum. So, it's a big space and growing quickly.

Generally speaking, blockchain enables users to build decentralized applications for a variety of use cases, including digital currency, store of value, smart contracts, and record keeping. We can hop to the next slide. So, if we compare crypto to traditional asset classes, it helps to put into context how small crypto is today despite its rapid growth over the last few years.

Ethereum and other smart contract platforms will likely compete with bonds, stocks, and derivatives for capital in the future. So, looking at crypto as a two-trillion-dollar asset class today is not the full picture. I think if you take a step back and see what crypto could be, two trillion dollars today actually is likely quite small compared to what cryptocurrency could be in the future as an asset class. So, if we could hop to the next slide. So, digging into the ecosystem a

little bit, there are numerous ways to invest behind the growth of the crypto space. On the crypto infrastructure side, you have two buckets: miners and mining equipment manufacturers. The mining equipment manufacturers make the computing devices that comprise the Bitcoin and other crypto networks. This includes public companies like Canaan and Northern Data. The crypto miners, on the other hand, run the mining equipment that keeps the crypto networks online night and day. This includes public companies Marathon Digital and Riot Blockchain. Moving beyond the miners and the mining equipment manufacturers, you have financial services side. And we have several buckets there: we have the crypto exchanges and custodians like Coinbase and Voyager Digital that provide on/off ramps for trading and safe crypto asset storage and custody; you have crypto trading and asset managers like Galaxy Digital, which offer institutional services as well and also trade their own proprietary capital; you have crypto supporting services and banks like Silvergate which help clients onboard fiat into the crypto ecosystem; and finally, you have crypto blockchain and digital payments companies like Visa and Argo Blockchain, which provide infra and tech behind electronic value transfers. Needless to say, there are many ways to invest behind the growth of the crypto industry. And with that, I'll hand it off to Anthony to discuss the metaverse.

Anthony Ross: Thanks for that, Coby. So, just as a complement to Coby's comments around the crypto and digital payments ecosystem, when we think about defining investment opportunities in the public markets for metaverse as a theme, we've been very focused on these six business activities that are central to enabling and delivering the kinds of experiences that we touched on earlier. The first is clearly gaming technology and gaming related software. It's one of the earliest mass use cases that are sort of conceived by this notion of the metaverse and more immersive experiences. And players like Tencent, the largest video game vendor in the world, in the first quarter they purchased an AR, augmented reality, and virtual reality headset manufacturer and announced their strategic focus in the space along with many of their competitors. Enabling the metaverse in some of these more immersive experiences will require massive amounts of data. And so, digital infrastructure and the data centers and colocation facilities and the related technologies associated with all of that are going to be critical. Design software and multi-media design and mapping and information system software is going to be extremely important. And so, leaders in the 3D software space like Unity and others are gonna play a very important role. Wearable tech. So, principally today, we think about our smart phones and iPhone or even ear pods relaying audio information. There's a lot of buzz even around potential Apple glasses that may come to market. There have been a

number of articles about that in the press. But even currently, there are thousands of augmented reality related apps and kits that are available through the App Store and other smart phone capabilities that we think are going to be an onramp and an important enabler for connecting our real physical selves to again, some of these immersive experiences. And then certainly, web content service companies like Meta platforms and others clearly that provide streaming and collaboration capabilities on the web will play a role. And then certainly computing hardware and componentry, particularly sort of high-end chip manufacturers like NVidia, who produce high quality graphics processors. And NVidia in particular has announced their omniverse platform which is a 3D interoperable kind of collaboration tool that we think as well will be an important component to this story. So, with that, let me turn it to my colleague, Lubna, who will talk a little bit more about some of these experiences that we envision evolving on and through the metaverse.

Lubna Lundy: Thank you, Anthony. And thank you for helping us understand how we're defining the metaverse and some of the technologies and enabling companies that are enabling the metaverse. I find it's also helpful to understand what has gotten us to this point and also to understand what these metaverse experiences look like while our colleagues in FCAT, or Fidelity Center for Applied Technology, have been studying the metaverse and

technological developments since something like 2014. The metaverse wasn't on most folks' radar. But more recently, there's been a number of driving forces that have brought us here. There's been significant growth in the convergence of physical and digital worlds as you described and virtual economies as a result of Web3, 5G, edge computing, gaming and social media. Also, the global pandemic. It's really driven this new growth of adoption and online engagement and digital collaboration, especially in these gaming platforms where you have millions of young gamers that are watching billions of hours of video games. It was over I think 18 billion hours of video games watched in 2020, for example. But it does go beyond just this very large gaming audience that's expected to continue to grow. We're really starting to see business models evolving, metaverse platforms changing the way that we connect, engage, and transact, so this new medium and economy for work, leisure, culture, shopping, and ultimately, innovation. So, for example, shopping; that's evolving. Shopping is going to get more personalized when we go into virtual physical spaces and we may be able to try different items on through wearable glass — I think you mentioned that, Anthony — and through mirrors in the future. Think about that. One of the virtual metaverse platforms called Decentraland, and we mentioned a couple of times, they held a fashion week that featured digital clothing from 70 luxury brands. Fancy, right? Esports, that now trails the NFL as the second-most

watched sports in the U.S.¹ And let's talk about virtual real estate. So, this new phenomenon, people, companies like Fidelity are purchasing digital land. In general, 54 billion dollars are spent on virtual goods every year — I never knew that — which is double the spend on buying music. And metaverse virtual real estate in particular, sales are expected to reach a billion dollars this year in 2022. So, we're seeing this new virtual and digital ecosystem already starting to form, creating new opportunities for organizations, brands, companies. And now you layer on ownership of digital assets, and that's really going to, and starting to already, redefine the way that brands like Fidelity present themselves. And to that point, I'm really excited to talk about how Fidelity is starting to leverage virtual metaverse platforms via its new Fidelity Stack. If you want to go to the next slide, Anthony. Anthony had mentioned this early on, most folks probably have seen that Fidelity purchased land in Decentraland, making it one of the first financial service firms to own land in Decentraland. And for those that aren't familiar, Decentraland, it's a decentralized open metaverse platform, meaning that it doesn't belong to any

¹*Empire Financial Research, 9/17/22.*

one person or organization or company. There are a limited number of parcels of land that are sold. I think it'll be helpful if we actually play a short clip to give folks a peek into our new gamified educational metaverse experiences, the Fidelity Stack. Do you want to throw to that clip?

Clip: At Fidelity, we're all about engaging and informing a new generation of investors, and it's taking us to some exciting places. Introducing the Fidelity Stack. Only in Decentraland. It's not our first metaverse rodeo, but we are the first brokerage firm to have an immersive educational metaverse experience. The Fidelity Stack is gamified, interactive, and educational where you can learn about the metaverse, investing basics, and our new Fidelity Metaverse ETF. So, drop in, cut loose, and share your thoughts. We're evolving right along with Web3 to continue driving innovative financial experiences. See you in the metaverse.

Lubna Lundy: So, isn't that great? A really great example of how brands from financial services to toilet paper brands are redefining brand engagement. I think the Fidelity Stack has really opened a new standard for brand experiences for financial service firms and for education in the metaverse. And if you are interested in visiting the Fidelity Stack in Decentraland, our coordinates are (-27,28) if you didn't see that on the screen. So, where do we go from here, what does the future of the metaverse look like, what are some considerations? If you want to go to the next slide, Anthony. According to many covering the metaverse, we are in a very nascent, early stage and a fully mature metaverse experience is at least 10 years away, some say decades.

Today, the gaming and virtual platforms owned by big tech and game developers already have a big presence in the space and represent some of the more prominent metaverse components. If you just take a look at the average monthly users in centralized social and gaming platforms that some are referring to as walled gardens, like Facebook, now Meta, 3.6 billion average monthly users. Some of the bigger gaming platforms, 100 to 150 million average monthly users. But these platforms only represent just a glimpse of what a mature metaverse could look like in engagement in the next 10 years and beyond. There are still considerations around interoperability, so the ability to be able to move your character across different platforms. That requires companies to share certain assets and economic attributes and identity systems. Decentralization, another consideration. Again, that community ownership in the metaverse, the thinking is big brands need to be more co-owned in the future and that'll incent folks to invest more in the brand. Platform convergence, the idea that centralized and decentralized platform approaches may start to converge. And regulations. So, as we start to create virtual identities that own assets, it's going to be important to make sure that you or the virtual you are who you say you are. So, considerations around KYC, privacy, and other regulations will be important. So, lots to consider as we think about the future of the metaverse and redefining reality as we continue to blur the lines between physical and digital to become this

more “phygital” world is one of the latest terms I’ve heard, and all with a transition to Web3 as a result of watching technology, cryptocurrency and the like. So, if you are wondering how you can get exposure to the various companies enabling the metaverse and crypto and the payments ecosystems, again, as mentioned, Fidelity just launched a Metaverse ETF, ticker FMET, and a Crypto Industry and Digital Payments ETF, ticker FDIG, that will join our growing lineup of thematic ETFs. Like other thematic strategies, these ETFs are rules based, systematic strategies that track our new proprietary thematic indices. As a reminder, highlights of our approach to constructing our systematic thematic ETFs definitely include Fidelity insights, so we’re tapping into Fidelity’s investment experts, our quantitative capabilities to identify what themes to launch, also to better define the different themes and the subthemes. Also, our thematic relevancy score; this is our proprietary score that helps us deliver theme purity, identify and prioritize relevant companies for respective themes for most of our strategies. And then our unique thematic quality screen, which is another proprietary screen and additional layer of risk management that we apply to most of our strategies to help us avoid riskier stocks coming into the index. So, again, if you flash to the last slide, these are all of the ETFs that currently make up our growing suite of thematic ETFs. Again, these strategies are intended to offer exposure to what we believe are long-term themes. And also, they are offered at what has been

highlighted as a very competitive price point in the industry at 39 basis points.

So, I will leave it there. And I think at this point, we can open it up for questions if there are any questions.

END OF AUDIO FILE

Before investing in an exchange-traded fund, you should consider its investment objectives, risks, charges, and expenses. Contact Fidelity for a prospectus, an offering circular, or, if available, a summary prospectus containing this information. Read it carefully.

ETFs are subject to management fees and other expenses.

Investing involves risk, including risk of loss.

App Store is a trademark of Apple, Inc.

Any screenshots, charts, or company trading symbols mentioned are provided for illustrative purposes only and should not be considered an offer to sell, a solicitation of an offer to buy, or a recommendation for the security.

Fidelity Metaverse ETF

Metaverse companies are subject to various risks, including those associated with limited product lines, markets, financial resources or personnel, intense competition, potentially rapid product obsolescence, impairment of intellectual property rights, disruptions in service, cybersecurity attacks, and changes in regulation. Although the fund's underlying index uses a rules-based proprietary index methodology that seeks to identify such companies, there is no guarantee that this methodology will be successful.

Fidelity Crypto Industry and Digital Payments ETF

The fund will not invest in digital assets (including cryptocurrencies) directly, or indirectly through the use of digital asset derivatives. Cryptocurrency and blockchain companies are subject to various risks, including inability to develop digital asset applications or to capitalize on those applications, theft, loss, or destruction of cryptographic keys, the possibility that digital asset technologies may never be fully implemented, cybersecurity risk, conflicting intellectual property claims, and inconsistent and changing regulations. Currently, there are relatively few companies for which these activities represent an attributable and significant revenue stream and therefore the values of the companies included in the index may not be a reflection of their connection to these activities but may be based on other business operations. Digital payments processing companies are subject to various risks, including those associated with intense competition, changes in regulation, economic conditions, deterioration in credit markets, impairment of intellectual property rights, disruptions in

service, and cybersecurity attacks and other types of theft. Fidelity Metaverse ETF Metaverse companies are subject to various risks, including those associated with limited product lines, markets, financial resources or personnel, intense competition, potentially rapid product obsolescence, impairment of intellectual property rights, disruptions in service, cybersecurity attacks, and changes in regulation. Although the fund's underlying index uses a rules based proprietary index methodology that seeks to identify such companies, there is no guarantee that this methodology will be successful.

Fidelity Brokerage Services LLC, Member NYSE, SIPC, 900 Salem Street, Smithfield, RI 02917

1027157.1.0